# SOUTHSIDE WATER AND SEWER DISTRICT (PWSNO 1090131) SOURCE WATER ASSESSMENT REPORT

August 6, 2002



## State of Idaho Department of Environmental Quality

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## **Executive Summary**

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This risk assessment is based on a land use inventory in the well recharge zone, sensitivity factors associated with how the well was constructed, and aquifer characteristics.

This report, *Source Water Assessment for Southside Water and Sewer District*, describes the public drinking water wells; the well recharge zone and potential contaminant sites located inside the recharge zone boundaries. This assessment, taken into account with local knowledge and concerns, should be used as a planning tool to develop and implement appropriate protection measures for this public water system. The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.

Southside Water and Sewer District drinking water is supplied by an infiltration well and a deeper well drawing water from a small aquifer in the vicinity of Sagle, Idaho. The district serves about 165 households in rural Bonner County. Historically, Southside Water and Sewer District has had few water quality problems. The district is concerned however about the effects of increased development in the area with the accompanying increase in the number of septic systems. A groundwater Susceptibility Analysis conducted by DEQ March 20, 2002 found the wells to be moderately susceptible to contamination, mostly because of natural risk factors associated with local geology.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Most of the delineated capture zone for the Southside wells is outside the direct jurisdiction of Southside Water And Sewer District, so working with the Bonner County Planning & Zoning board and the board of county commissioners to establish a wellhead protection overlay zone is probably the most effective way to prevent contamination due to over-development. The wastewater land application site managed by Southside Water and Sewer District covers a substantial portion of the 3 to 6-year time of travel zone delineated for the Southside drinking water wells. The District should install a network of ground water monitoring wells, particularly on the north edge of the land application site, and needs to work closely with DEQ to develop the wastewater constituent limits for their land application permit.

Due to the time involved with the movement of ground water, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. For assistance in developing protection strategies, please contact the Coeur d'Alene Regional office of the Department of Environmental Quality or the Idaho Rural Water Association.

#### SOURCE WATER ASSESSMENT FOR SOUTHSIDE WATER AND SEWER DISTRICT

#### **Section 1. Introduction - Basis for Assessment**

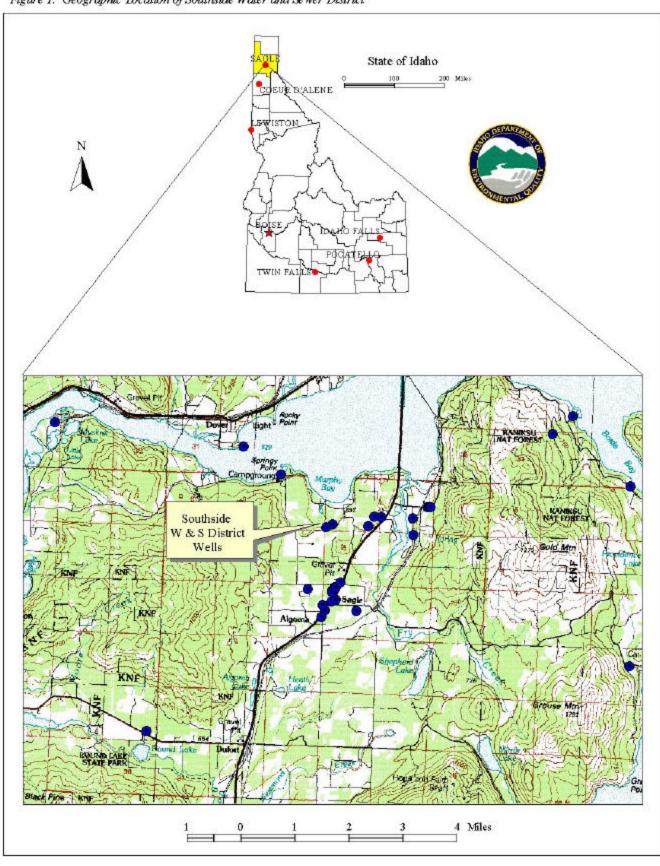
The following sections contain information necessary for understanding how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and an inventory of significant potential sources of contamination identified within that area are included. The ground water susceptibility analysis worksheets used to develop this assessment are attached.

## Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess every public drinking water source in Idaho for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. These assessments are based on a land use inventory inside the delineated recharge zones, sensitivity factors associated with how the well is constructed, and aquifer characteristics. The state must complete more than 2900 assessments by May of 2003. Because resources and the time available to accomplish assessments are limited, an in-depth, site-specific investigation for every public water system is not possible.

The results of the source water assessment should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system. The ultimate goal of this assessment is to provide data to local communities for developing a protection strategy for their drinking water supply. The Idaho Department of Environmental Quality recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Figure 1. Geographic Location of Southside Water and Sewer District



## **Section 2. Preparing for the Assessment**

#### **Defining the Zones of Contribution - Delineation**

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the well recharge area into time of travel zones indicating the number of years necessary for a particle of water to reach a well. DEQ used a refined computer model approved by the EPA to determine the time of travel (TOT) for water the Southside Water and Sewer District well pumps from its aquifer. The computer model used data assimilated by DEQ from a variety of sources including local well logs and the report *Steady State Simulation of Nutrient and Contaminant Transport in the Southside Aquifer Near Sagle, Idaho* prepared by J-U-B Engineers, Inc.

Southside Water and Sewer District serves a rural community of approximately 375 people located in the vicinity of Sagle, Idaho (Figure 1). Public drinking water for Southside Water and Sewer District customers is supplied by a 22-foot deep infiltration well and a 92 foot deep pumping well drawing from an unconfined region of the Sagle/Southside aquifer.

The delineated source water assessment area for Southside Water and Sewer District covers 202 acres and is 1.25 miles long between Well #1 and the 10 year time of travel boundary. The general direction of ground water flow is from south to north.

## **Identifying Potential Sources of Contamination**

The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. Inventories for public water systems in Idaho were conducted in two-phases. The first phase involved identifying and documenting potential contaminant sources inside individual source water assessment areas through the use of computer databases and Geographic Information System maps developed by DEQ. The maps and inventory lists were then sent to system operators for verification and correction in the second or enhanced part of the inventory process. Bill Bennett completed this part of the inventory for Southside Water and Sewer District.

Figure 2, *Southside Water and Sewer District Delineation and Potential Contaminant Inventory* on page 7 of this report shows the location of the Southside Water and Sewer District well, and the zone of contribution DEQ delineated for it. The delineated area lies west of State Highway 95 in portions of sections 3, 4, 9, 10, 15 and 16 of Township 56N, R2W that are mostly undeveloped. There is a gravel pit just outside the 6-10 year time of travel zone. Some hay is grown on the wastewater land application site that covers most of the 3 to 6 year time of travel zone.

Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. When a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the <u>potential</u> for contamination exists due to the nature of the business, industry, or operation.

## **Section 3. Susceptibility Analysis**

The susceptibility to contamination of all groundwater sources in Idaho is being assessed on the following factors:

- physical integrity of the well,
- hydrologic characteristics,
- land use characteristics, and potentially significant contaminant sources
- historic water quality

The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. A high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking. The Susceptibility Analysis Worksheet in Attachment A show in detail how the Southside Water and Sewer District wells scored.

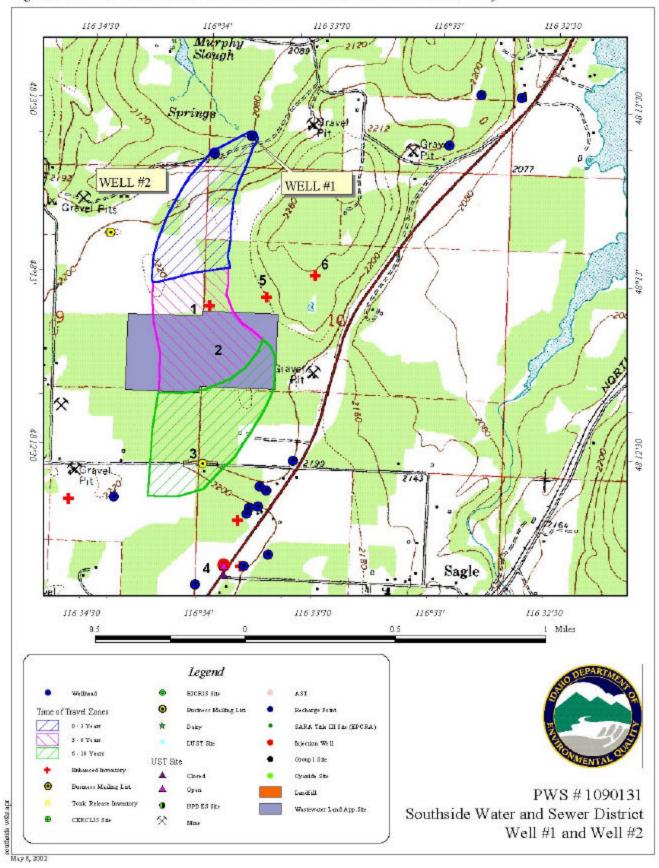
#### **Well Construction**

Well construction directly affects the ability of the wells to protect the aquifer from contaminants. Lower scores imply a well that can better protect the water. This portion of the susceptibility analysis relies on information from individual well logs and from the most recent sanitary survey of the public water system.

The Southside Water and Sewer District drinking water system relies on two sources. Points were marked against both wells in this portion of the analysis because they are shallow and are completed in permeable soil strata. Well #1 is an infiltration gallery dug in 1976 and equipped with two 60-foot horizontal collection pipes and a concrete collection basin. The well log is not on file with DEQ

Well #2 was drilled in 1995 to a depth of 92 feet. The 10-inch steel casing extends the full depth of the well and is perforated between 65 and 85 feet below the surface. Water was first encountered at a depth of 55 to 60 feet. The static water level in the well is 12 feet below the surface. The bentonite clay surface seal is 30 feet deep. Southside Water and Sewer District chlorinates its water before it enters the distribution system. Improvements to the system recommended in a sanitary survey in September 1999 were completed the following spring, bringing the system into compliance with *Idaho Rules for Public Drinking Water Systems*.

Figure 2. Southside Water and Sewer District Delineation and Potential Contaminant Inventory.



### **Hydrologic Sensitivity**

The hydrologic sensitivity scores for the Southside Water and Sewer District wells are 6 points out of 6 points possible. The scores reflect natural geologic conditions at the well site and in the recharge zone. Soils in the capture zone delineated for the wells are generally well drained. Poorly drained to moderately well drained soils are deemed more protective of ground water than soils which drain faster. The depth to ground water in both wells is far less than 300 feet. The soil column above a deep water table provides some protection from potential contaminants through adsorption and other mechanisms. The driller's report for Well #2 says that soils above the water table at the well site are mostly sand and gravel without a significant layer of fine grained material to retard the vertical transport of contaminants.

#### **Potential Contaminant Sources and Land Use**

Land inside the Southside Water and Sewer District well recharge zone is mostly undeveloped. Potential contaminant sites documented inside the delineated area include a municipal waste water land application (WLAP) site that covers most of the 3 to 6 year time of travel zone and a portion of the 6 to 10-year TOT. The land application site is owned an operated by the Southside Water and Sewer District. Some hay is grown on the site. There is a private well, approximately 100 feet deep, just north of the WLAP. An automotive repair business is located next to the county road in the 6 to 10-year TOT.

The potential contaminant inventory map on page 7 also includes some nearby sites that fall outside the delineation boundaries. They are included because of the uncertainty inherent in ground water flow modeling. At its closest, Highway 95 comes within 960 feet of the 6 to 10 year time of travel zone. Other potential contaminant sources in the vicinity are a gas station about 1500 feet south of the 10-year time of travel boundary, and a gravel mining operation where there is active blasting. Waste oil is reportedly applied to the private road leading onto the site for dust abatement.

Table 1. Southside Water and Sewer District Potential Contaminant Inventory

MAP ID	SITE DESCRIPTION	POTENTIAL	TIME OF TRAVEL	SOURCE OF
NUMBER		CONTAMINANTS <sup>1</sup>	ZONE	INFORMATION
1	Private Well	Microbial	3-6	Enhanced Inventory
2	Wastewater Land	IOC, Microbial	3-6	WLAP Database
	Application		6-10	
3	Auto Repair Shop	IOC, SOC, VOC,	6-10	Business Mailing List
4	Gas Station	SOC, VOC	Outside of Delineation	Enhanced Inventory
5	Waste Oil Application	SOC, VOC	Outside of Delineation	Enhanced Inventory
6	Gravel Pit	IOC, SOC, VOC,	Outside of Delineation	Mine Database
		Microbial		

<sup>&</sup>lt;sup>1</sup> IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

#### **Historic Water Quality**

Historically, Southside Water and Sewer District has had few water quality problems. The system tests monthly for total coliform bacteria and had had no confirmed positive results. The water is chlorinated before it enters the distribution system. Chemical and radiological test results are summarized below.

Table 2. Southside Water and Sewer District Chemical Test Results

			P	rimaı	y IOC Conta	amiı	nants (Mandat	tory Test	ts)		
Contaminant		CL g/l)	Results (mg/l)				Contaminant	MCL (mg/l)	Results (mg/l)		Dates
Antimony	0.006	6	ND	4/28/82 to 8/21/01			Nitrate	10	0.38 to1.15		2/28/82 to 8/21/01
Arsenic	0.01		ND	4/28/	82 to 8/21/01		Nickel	N/A	ND		4/28/82 to 8/21/01
Barium	2.0		0.02	10/21	/98, 8/21/01		Selenium	0.05	ND		4/28/82 to 8/21/01
Beryllium	0.004	4	ND	4/28/	82 to 8/21/01		Sodium	N/A	4.1 to 4.5		1/8/86 to 8/21/01
Cadmium	0.005	5	ND	4/28/	82 to 8/21/01		Thallium	0.002	ND		4/28/82 to 8/21/01
Chromium	0.1		ND	4/28/	82 to 8/21/01		Cyanide	0.02	ND		4/28/82 to 8/21/01
Mercury	0.002	2	ND	4/28/	82 to 8/21/01		Fluoride	4.0	0.125, 0.12		4/28/82, 1/8/86
Secondary and Other IOC Contaminants (Optional Tests)											
Contaminant Recommended				Results (mg/l)			Dates				
Maximum (mg/l) Sulfate 19.3				19.3	10/21/98					8	
Iron					0.02			9/13/85			-
3132						ted	Synthetic Org	ganic Ch	emic		
Regulated and Unregulated Synthetic Organic Chemicals  Contaminant Results Dates								Dates			
29 Regulated and 13 Unregulated Synthetic Organic Compounds								0/93, 12/29/98			
				ated a	and Unregul	ated	Volatile Orga	nic Che	mica	ls	
Contaminant						Results			Dates		
21 Regulated And 16 Unregulated Volatile Organic Compounds				None Detected 3/27			7/91, 12/29/98				
					Radiolog	ical	Contaminants	;			
Contaminant MCL			Res	sults	Dates	Dates					
Gross Alpha, Including Ra & U 15 pC/l			C/I	0.7	to 2.1	6/24/80	5/24/80 to 8/21/01				
			em/year	1.9	to 3.0 mrem	6/24/80 to 11/18/97					
				-	2.9	pC/l	8/21/01				

## **Final Susceptibility Ranking**

The Southside Water and Sewer District wells ranked moderately susceptible to all classes of regulated contaminants. Risk factors associated with local geology added the most points to the final susceptibility scores. Final susceptibility scores and rankings relative to each category of regulated contaminants are summarized on Table 3. The complete analysis worksheets for the wells are in Attachment A.

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

The final ranking categories are as follows:

- 0 5 Low Susceptibility
- 6 12 Moderate Susceptibility
- > 13 High Susceptibility

Table 3. Summary of Southside Water and Sewer District Susceptibility Evaluation

Final Susceptibility Scores/ Ranking							
	IOC	VOC	SOC	Microbial			
Well #1	12/Moderate	11/Moderate	11/Moderate	10/Moderate			
Well #2	11/Moderate	10/Moderate	10/Moderate	9/Moderate			

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical HIGH\* - Indicates source automatically scored as high susceptibility due to presence of bacteria or a VOC, SOC or an IOC above the maximum contaminant level in the tested drinking water

## **Section 4. Options for Source Water Protection**

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Southside Water and Sewer District has already taken significant steps toward protecting its water supply. The District owns the land around its wells and has the area fenced to control access. It commissioned a study of its aquifer to determine the effects on water quality of different development densities. Pursuing a wellhead protection overlay zone for the recharge area would probably be the most effective measure to prevent degradation of the water from future development. The wastewater land application site managed by Southside Water and Sewer District covers a substantial portion of the 3 to 6-year time of travel zone delineated for the Southside drinking water wells. The District should install a network of ground water monitoring wells, particularly on the north edge of the land application site, and needs to work closely with DEQ to develop the wastewater constituent limits for their land application permit.

It will also be important to form a working relationship with neighboring landowners, some of them may not be aware that their property is in a sensitive area where household, agricultural or business practices could have a negative impact on water quality for the whole community. The district should actively promote ground water stewardship programs. Proper septic tank use and maintenance workshops or workshops devoted to safe use and disposal of household chemicals are examples of educational activities the district could sponsor.

Partnerships with state and local agencies and industry groups should also be established. For instance, source water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, local Soil Conservation District, and the Natural Resources Conservation Service. Due to the time involved with the movement of ground water, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

### Assistance

Public water suppliers and users may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Coeur d'Alene Regional DEQ Office (208) 769-1422

State IDEQ Office (208) 373-0502

Website: <a href="http://www.deq.state.id.us">http://www.deq.state.id.us</a>

Water suppliers serving fewer than 10,000 persons may contact Melinda Harper, Idaho Rural Water Association, at (208) 343-7001 for assistance with drinking water protection strategies.

#### **References Cited**

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

Idaho Department of Agriculture, 1998. Unpublished Data.

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Natural Resource Conservation Service, 1991. Idaho Snake-Payette Rivers Hydrologic Unit Plan of Work. March 1991.

United States Geological Survey, 1986. Quality of Ground Water in the Payette River Basin, Idaho. United States Geological Survey. Water Resources Investigation Report 86-4013.

University of Idaho. 1986. Ground Water Resources in a Portion of Payette County, Idaho. Idaho Water Resources Research Institute. University of Idaho. Moscow, Idaho. April 1986.

## Attachment A

## Southside Water and Sewer District Susceptibility Analysis Worksheets

### **Ground Water Susceptibility**

Ground Water Susceptibility					
Public Water System Name : SOUTHSIDE WATER A		WELL #1			
Public Water System Number: 1090131	3/20/02 12:1	0:21 PM			
1. System Construction		SCORE			
Drill Date	1976				
Driller Log Available	NO				
Sanitary Survey (if yes, indicate date of last survey)	YES 1999				
Well meets IDWR construction standards	UNKNOWN	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	NO	2			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		4			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	NO	2			
Vadose zone composed of gravel, fractured rock or unknown	GRAVEL	1			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
Total Hydrologic Score		6			
		IOC	VOC	SOC	Microbia
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Se	tback)	Score	Score	Score	Score
Land Use Zone 1A	RURAL	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1
Potential Contaminant / Land Use - ZONE 1B ( 3 YR. TOT)					
Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2 ) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		0	0	0	0
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	YES	2	0	0	
Sources of Class II or III leacheable contaminants or Microbials	YES	1	0	0	
Land Use Zone II	Greater Than 50% IrrigatedWLAP	2	2	2	
Potential Contaminant Source / Land Use Score - Zone II	OLDE	5	2	2	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	YES	1	1	1	
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		2	2	2	0
Cumulative Potential Contaminant / Land Use Score		8	5	5	1
4. Final Susceptibility Source Score		12	11	11	10
5. Final Well Ranking		Moderate		Moderate	Moderate

#### **Ground Water Susceptibility**

Public Water System Name : SOUTHSIDE WATER AND SEWER DISTRICT Source: WELL #2

Public Water System Number : 1090131 3/20/02 12:10:06 PM

Public Water System Number: 1090131	3/20/02 12:	10:06 PM			
1. System Construction		SCORE			
Drill Date	7/18/95				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 1999				
Well meets IDWR construction standards	YES	0			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	NO	2			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		3			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	NO	2			
Vadose zone composed of gravel, fractured rock or unknown	YES	1			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
Total Hydrologic Score		6			
		IOC	VOC	SOC	Microbia
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary So	etback)	Score	Score	Score	Score
Land Use Zone 1A	RURAL	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		1	1	1	1
Potential Contaminant / Land Use - ZONE 1B ( 3 YR. TOT)					
Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2 ) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		0	0	0	0
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	YES	2	0	0	
Sources of Class II or III leacheable contaminants or Microbials	YES	1	0	0	
Land Use Zone II	Greater Than 50% Irrigated WLAP SI	ΤЕ 2	2	2	
Potential Contaminant Source / Land Use Score - Zone II	-	5	2	2	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT	)				
Contaminant Source Present	YES	1	1	1	
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		2	2	2	0
Cumulative Potential Contaminant / Land Use Score		8	5	5	1
4. Final Susceptibility Source Score		11	10	10	9
5. Final Well Ranking		Moderate	Moderate		Moderate

## POTENTIAL CONTAMINANT INVENTORY LIST OF ACRONYMS AND DEFINITIONS

<u>AST (Aboveground Storage Tanks)</u> – Sites with aboveground storage tanks.

<u>BML</u> (<u>Business Mailing List</u>)— This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

<u>CERCLIS</u> – This includes sites considered for listing under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

<u>Cyanide Site</u> – DEQ permitted and known historical sites/facilities using cyanide.

<u>Dairy</u> – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

<u>Deep Injection Well</u> – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain - This is a coverage of the 100year floodplains.

<u>Group 1 Sites</u> – These are sites that show elevated levels of contaminants and are not within the priority one areas.

<u>Inorganic Priority Area</u> – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

<u>Landfill</u> – Areas of open and closed municipal and non-municipal landfills.

<u>LUST (Leaking Underground Storage Tank)</u> – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

<u>Mines and Quarries</u> – Mines and quarries permitted through the Idaho Department of Lands.)

<u>Nitrate Priority Area</u> – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

#### NPDES (National Pollutant Discharge Elimination System)

 Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

<u>Organic Priority Areas</u> – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

<u>Recharge Point</u> – This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS** – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

<u>Closed Or Open UST (Underground Storage Tank)</u> – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

<u>Wastewater Land Applications Sites</u> – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

<u>Wellheads</u> – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.